Curriculum of Integrated (Bachelor-Master) Educational Program of training of Basic /Secondary Level Mathematics Teacher

#	Studying / Research Component	Prerequisites	Credits	I	II	III	IV	V	VI	VII	VIII	IX	X
				Academic Semesters									

#	Studying / Research Component	Prerequisites	Credits	I	II	III	IV	V	VI	VII	VIII	IX	X
Mandatory study course of the free component- 29 ECTS credits													
1.	Academic writing	Doesn't have	4		4								
2.	English language 1 (B1.1)	Doesn't have	5	5									
3.	English language 2 (B1.2)	English language 1 (B1.1)	5		5								
4.	English language 3 (B2.1)	English language 2 (B1.2)	5			5							
5.	English language 4 (B2.2)	English language 3 (B2.1)	5				5						
6.	Computer skills	Doesn't have	5	5									
Study courses of the subject/subject group - 121 ECTS; including: mandatory study courses - 116 ECTS													
7.	Elementary Algebra	Doesn't have	6	6									
8.	Elementary Geometry	Doesn't have	6	6									
9.	Mathematical logic	Doesn't have	4	4									
10.	Mathematical Analyze 1	Doesn't have	6		6								
11.	Linear Algebra	Doesn't have	5		5								
12.	Analytical Geometry	Doesn't have	5		5								
13.	Mathematical Analyze 2	Mathematical Analyze 1	6			6							
14.	Discrete Mathematics	Doesn't have	5			5							
15.	General Physics	Doesn't have	5			5							
16.	Fundamentals of functional analysis	Mathematical Analyze 2	5				5						
17.	Theory of Probability	Mathematical Analyze 2	5				5						

№	Course	Prerequisite	ECTS	I	II	III	IV	V	VI	VII	VIII
18.	Differential equations1	Mathematical Analyze 2	5				5				
19.	Differential Geometry1	Mathematical Analyze 2	5				5				
20.	Mathematical statistics	Theory of Probability	5					5			
21.	Differential equations 2	Differential equations1	5					5			
22.	Differential Geometry12	Differential Geometry1	5					5			
23.	Computational Mathematics	Mathematical analysis 2; Linear Algebra	5					5			
24.	Theory of complex variable functions	Mathematical Analyze 2	5						5		
25.	Partial differential equations	Differential equations 2	4						4		
26.	Basics of numerical analysis	Computational Mathematics; Differential equations 1	5					5			
27.	Optimization models	Linear Algebra	4						4		
28.	History of Mathematics	Doesn't have	5							5	
29.	Bases of Geometry	Doesn't have	5							5	
Optional study courses of the subject/subject group - 5 ECTS											
30.	Mathematical modeling	Differential equations2	5							5	
31.	MATLAB	Differential equations2; English language B2.2	5							5	
32.	General Astronomy	Doesn't have	5							5	
33.	Systems of computer analysis of statistical information (SPSS)	Mathematical statistics	5							5	
Training courses of the teacher training module - 60 ECTS credits; including: mandatory training courses- 57 ECTS											
34.	Safe school and the ethics of school communication	Doesn't have	4	4							
35.	General Basics of Pedagogy	Doesn't have	5			5					
36.	General Basics of Pedagogy	English language 4 (B2.2)									

No.	Course name	Prerequisite	ECTS								
37.	Basic principles of inclusive education	Doesn't have	4		4						
38.	Teaching theories	Doesn't have	5			5					
39.	Modern approaches of Teaching and Learning	General bases of pedagogy	5				5				
40.	Modern approaches of Teaching and Learning	General bases of pedagogy; English language4 (B2.2)									
41.	Creating resources for teaching mathematics using information technology	Doesn't have	4					4			
42.	Class assessment	Modern approaches of Teaching and Learning	4					4			
43.	Legal bases of the general education system	Doesn't have	3						3		
44.	Basic/secondary level mathematics teaching methodology 1	modern approaches to learning and teaching; Class assessment	6					6			
45.	Basic/secondary level mathematics teaching methodology 2	Basic/secondary level mathematics teaching methodology 1	6							6	
46.	Methods of teaching elementary level mathematics	modern approaches to learning and teaching; Class assessment	5							5	
47.	Education for democratic citizenship	Doesn't have	3						3		
48.	Education for sustainable development	Doesn't have	3								3
Optional training courses of the teacher training module - 3 ECTS											
49.	Media literacy	Doesn't have	3								3
50.	Intercultural education and pedagogical approaches	Doesn't have	3								3
51.	Information security management	English language B2.	3								3
52.	Teaching mathematics in an inclusive environment	Basic principles of inclusive education	3								3
Compulsory study courses/components of school practice and practice research module- 60 ECTS credits											
53.	Innovative research methods in education	Doesn't have	5						5		
54.	Practice-based research	Innovative research methods in education, English language B2	5							5	
55.	Diagnostic research and differentiated approach	Innovative research methods in education, English language B2	5								5

№	Subject	Prerequisite	Credits	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
56.	Pedagogical practice1	Primary level mathematics teaching methods; Basic/secondary level mathematics teaching methodology 2	15									15	
57.	Pedagogical practice2	Pedagogical practice1	10										10
58.	Master's thesis	1-9 semester subject/subject group and teacher training module training courses; diagnostic research and differentiated approach; Pedagogical practice 1	20										20
Optional study course of free component - 30 ECTS credits				**0**	**5**	**0**	**0**	**5**	**4**	**6**	**6**	**4**	**0**
59.	Introduction to Informatics	Doesn't have	5		5								
60.	Computer maintenance	Doesn't have	3						3				
61.	Bases of programming	Introduction to Informatics	5					5					
62.	Introduction to web technologies	Computer skills	5		5			5					
63.	Introduction to Computer Networks	Computer maintenance	3								3		
64.	Database management systemMs SQL Server	Computer skills	5		5			5					
65.	Basics of Artificial Intelligence	Discrete Mathematics	4						4			4	
66.	Cyber security	English language B2	3							3	3		
67.	Leadership and organizational culture	Doesn't have	6							6	6		
68.	Implementation of the quality system in general educational institutions	Doesn't have	6							6	6		
69.	The role of the educational program in the formation of the student	Doesn't have	4						4			4	
70.	English language A1	Doesn't have	5	5[1]									
71.	English language A2	English language A1	5		5								
72.	The art of debate	Doesn't have	4						4			4	

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[1] See Note

73.	Introduction to Sociology	Doesn't have	3							3	3		
	Distribution of credits according to semesters			30	30	30	30	30	30	30	30	30	30
	Total			300 ECTS									

Note:

1. Confirmation of knowlegde of English language at the B2 level or achievement within the program is mandatory. The student confirms the level of knowledge of the English language in accordance with the "Rule for determining the language competence of a student of European University";

2. Within the framework of the program, the student starts learning English from the level confirmed according to the "Rules for determining the language competence of a student of European University ". In the event that the student cannot confirm his/her knowledge of the English language at the A2 level, he/she starts learning the English language within the program from the appropriate level confirmed according to the mentioned rule (English language A1 / English language A2). The levels required to start at the B1.1 level of English (English language A1 / English language A2) are chosen by the student from the optional courses of the free component provided by the program;

3. In case the student confirms his/her knowledge of the English language at the B2 level in accordance with the "Rule for determining the language competence of a student of European university , he/she is exempted from the acquisition of the English language component and acquires the credits (20 credits) of the main field of study with optional courses or free credits. Whether the level confirmed by the student is higher than the initial level defined by the program (B1.1), the student fills up the volume of remaining credits with optional courses or free credits of the main field of study.